

ABSTRACT OF THE INVENTION

A polymeric structural support membrane composed of a polymer that is an initiator induced reaction product of a monomer, an initiator, and optionally a crosslinking agent; and a fire retardant is applied to the surfaces of an excavation to provide structural support. The polymer is a reaction product of a monomer that can be monofunctional, di-functional, tri-functional, tetra-functional and mixtures thereof. The membrane formed has a tensile strength and a thickness sufficient to provide support to the exposed surfaces in the excavation and can be applied by spraying, brushing, or rolling. In an alternative embodiment the membrane can be

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applied by pumping.